Remarks

The Office Action mailed 9 February 2005 has been received and reviewed. Claims 6, 20, and 27 having been amended, and no claims having been added or canceled herein, the pending claims are claims 1-4, 6-18, and 20-28.

Claims 6 and 20 have been amended to recite that "the matrix further comprises at least one amorphous, non-polymeric, organic dendrimer."

Claim 27 has been amended to delete the inadvertent recitation of language relating to a method.

Reconsideration and withdrawal of the rejections are respectfully requested.

Obviousness-Type Double Patenting Rejection

Claims 6-7, 20, and 26-28 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of U.S. Patent No. 6,844,128.

Upon an indication of otherwise allowable subject matter and in the event this rejection is maintained, Applicants will provide an appropriate response.

Rejection under 35 U.S.C. §112, Second Paragraph

The Examiner rejected claim 27 under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Applicants thank the Examiner for noting the inadvertent recitation of language relating to a method. The language relating to the method having been deleted, Applicants respectfully submit that the rejection has been rendered moot.

The Examiner also rejected claims 6, 7, and 20 under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject

matter which Applicants regard as the invention. Specifically, the Examiner alleged that these claims are indefinite because they present limitations which appear to be in conflict with the requirements of the claims upon which they depend.

While not acquiescing to the Examiner's interpretation of the amorphous, non-polymeric, organic compounds recited in claims 1 and 16 as excluding dendrimers, Applicants have amended claims 6 and 20 to recite that "the matrix further comprises at least one amorphous, non-polymeric, organic dendrimer," and the rejection has been rendered moot.

However, the Examiner asserted that an embodiment in which the matrix is "a mixture of tetrahedral core compounds and dendrimers . . . does not appear to be described in the specification" (page 3, lines 9-12 of the Office Action mailed 9 February 2005). Applicants earnestly disagree.

The present specification describes OEL devices that include "a thin layer, or layers, of one or more suitable organic materials sandwiched between a cathode and an anode" (page 6, lines 25-26). The present specification further discloses "an amorphous, non-polymeric, organic matrix with an electrically active material disposed therein" (e.g., page 3, lines 26-28) for use in preparing such devices. In describing a coating composition for preparing such an amorphous matrix, the specification recites that "[o]ther materials that can be included in the coating composition include, for example, . . . ***other non-polymeric, organic materials***" (page 11, lines 26-32; emphasis added). Notably, the specification describes the amorphous, non-polymeric compounds recited in present claim 1 as "[e]xamples of suitable non-polymeric, organic materials that can form an amorphous matrix when solution coated" (page 12, lines 10-12). Notably, the specification further recites that "[o]ther materials that can be used to form amorphous, non-polymeric, organic matrices include dendrimers" (page 15, lines 12-13). Thus, Applicants respectfully submit that the specification clearly contemplates using a mixture of, for example, tetrahedral core compounds and dendrimers.

Reconsideration and withdrawal of the rejections under 35 U.S.C. §112, second paragraph, are respectfully requested.

THE PRESENT INVENTION

The present specification describes difficulties that have been encountered in attempts to make organic electroluminescent (OEL) devices by various methods:

> A number of methods have been used or tried to make OEL devices. For example, SM light emitting devices have been formed by sequential vapor deposition of hole transporting, emitting, and electron transporting molecules. Although the layers are amorphous when deposited, the layers can crystallize over time, diminishing their charge transport and emission properties. In general, it can be difficult to solution cast SM materials since they tend to form crystallites upon solvent drying or later during the device lifetime.
>
> As another example, light emitting layers based on LEP materials have been fabricated by solution coating a thin layer of the polymer. This method may be suitable for monochromatic displays or lamps. In the case of devices fabricated with solution casting steps, it is much more difficult to create multilayer devices by multiple solvent casting steps. Multilayer devices could be produced in which layers are cast from different solvents, a first insoluble layer is created in situ and a second layer is solvent cast, a first layer is solution cast and a second layer is vapor deposited, or one or both of the layers is crosslinked.
>
> Polymer dispersed small molecule devices have been fabricated by solution casting a blend of a host polymer (e.g. polyvinylcarbazole) and a mixture of one or more small molecule dopants. In general, these devices require high voltages to operate and are not suitable for display applications. In addition, they suffer from the same restrictions for patterning as the LEPs.
>
> (Page 9, lines 1-20).

The present specification further describes another method for making OEL devices including transfer of one or more transfer layers by laser thermal patterning:

> Another method of forming devices includes the transfer of one or more transfer layers by laser thermal patterning. . . . The patterning process can depend

> upon the physical properties of the transfer layer. One parameter is the cohesive, or film strength, of the transfer layer. During imaging, the transfer layer preferably breaks cleanly along the line dividing imaged and unimaged regions to form the edge of a pattern. Highly conjugated polymers which exist in extended chain conformations, such as polyphenylenevinylenes, can have high tensile strengths and elastic moduli comparable to that of polyaramide fibers. In practice, clean edge formation during the laser thermal imaging of light emitting polymers can be challenging. The undesired consequence of poor edge formation is rough, torn, or ragged edges on the transferred pattern.
> (Page 9, line 21 to page 10, line 3).

Finally, the present specification teaches that transfer layers that include an amorphous, non-polymeric, organic matrix can be useful for making an organic electroluminescent device by selectively thermally transferring the transfer layer to a receptor.

> As an alternative to or improvement on these previous methods and to address some of the above-described difficulties, light emitting material, such as one or more light emitting polymers (LEPs) or other light emitting molecules, can be solution coated as part of a coating composition that includes a material capable of forming an amorphous, non-polymeric, organic matrix that resists crystallization. The amorphous nature of the matrix can, in combination with the non-polymeric nature of the matrix, provide low cohesive strength, as compared to typical polymer transfer layers, during transfer from a donor medium to a receptor, as described below. The amorphous nature of the matrix-forming material may also act to compatibilize more than one electrically active material (e.g. two otherwise incompatible LEPs or an LEP and a phosphorescent emitter). LEPs will be used as an example for the description below, but it will be recognized that other light emitting, semiconducting, hole transporting, electron transporting, or otherwise electrically active molecules could be used in place of or in addition to one or more LEPs. In addition, laser thermal transfer will be used as an example of a method for forming light emitting and other layers, however, it will be recognized that other transfer, patterning, and printing techniques can be used, such as inkjet printing, screen printing, thermal head printing, and photolithographic patterning.
> (Page 10, lines 4-20).

Rejections under 35 U.S.C. §103

CLAIMS 26-28

The Examiner rejected claims 26-28 under 35 U.S.C. §103(a) as being unpatentable over EP 0 851 714 (EP '714) in view of Chen et al. ("Recent Developments in Molecular Electroluminescent Materials"). Applicants respectfully traverse the rejection.

"To establish a *prima facie* case of obviousness . . . there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." M.P.E.P. §706.02(j). Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness.

Claims 26-28 are directed to methods of making donor sheets, and donor sheets having a solution coated transfer layer that includes, among other things, an amorphous, non-polymeric, organic matrix. The matrix includes at least one amorphous, non-polymeric, organic dendrimer, wherein the dendrimer is selected from the recited group. The donor sheets can be useful for making an organic electroluminescent device by selectively thermally transferring the transfer layer to a receptor.

EP '714

EP '714 recites "[a] donor film for an organic thin film of an organic electroluminescence device (EL device), and a method for manufacturing an organic EL device using the same. The donor film includes a . . . transfer layer . . . formed of a luminous material, a hole transfer low molecular weight compound, a hole transfer high molecular weight compound, an electron transfer low molecular weight compound or an electron transfer high molecular weight compound, and the luminous material is an organic electroluminescence layer, an organometallic complex electroluminescence material or an electroluminescence polymer" (abstract). However, as noted by the Examiner, EP '714 lacks, among other things, a teaching or suggestion of a solution coated transfer layer having, among other things, an amorphous, non-polymeric, organic

matrix that includes at least one amorphous, non-polymeric, organic dendrimer, wherein the dendrimer is selected from the group recited in present claims 26-28.

Specifically EP '714 fails to teach or suggest the presently claimed transfer layer that includes, among other things, an amorphous, non-polymeric, organic matrix. Although some of the materials disclosed in EP '714 may form an amorphous, non-polymeric, organic matrix (e.g., compound 11 as a hole transfer low molecular weight compound; page 7), EP '714 fails to provide any guidance for one of skill in the art to select other materials that can form an amorphous, non-polymeric, organic matrix. Thus, EP '714, which is totally silent regarding the amorphous and/or crystalline properties of the disclosed hole transfer materials, fails to disclose or suggest a genus of materials that can form an ***amorphous***, non-polymeric, organic matrix.

Further, EP '714 provides no guidance for one of skill in the art to select non-polymeric materials (e.g., a hole transfer low molecular weight compound) from the disclosed list of hole transfer materials, which include both polymeric hole transfer materials (e.g., compound 12, a hole transfer high molecular weight compound; page 7) and non-polymeric hole transfer materials (e.g., compounds 8 to 11, hole transfer low molecular weight compounds; pages 6-7). Therefore, EP '714 further fails to disclose or suggest a genus of materials that can form an ***amorphous, non-polymeric***, organic matrix.

Moreover, transfer layers that include an ***amorphous, non-polymeric***, organic matrix do not require the use of a polymer to form the matrix. As noted in the present specification (and cited herein above), "clean edge formation during the laser thermal imaging of light emitting ***polymers*** can be challenging. The undesired consequence of poor edge formation is rough, torn, or ragged edges on the transferred pattern" (page 10, lines 1-3; emphasis added).

Thus, Applicants respectfully submit that EP '714 fails to disclose or suggest a solution coated transfer layer having, among other things, an amorphous, non-polymeric, organic matrix that includes at least one ***amorphous, non-polymeric***, organic dendrimer, wherein the dendrimer is selected from the group recited in present claims 26-28.

<u>Chen et al.</u>

Chen et al. presents "[a] review of recent developments in the design and use of small molecular organic electroluminescent materials for display applications. . . . The material issues pertaining to transport properties, color, emission efficiencies, and operational stability are described" (abstract). Among the many materials disclosed by Chen et al. for use as hole transport materials, the Examiner notes that Chen et al. disclose m-MTDATA on page 13 (the same compound as compound 11 disclosed in EP '714) as well as other dendrimers including *tris*-(phenothiazinyl)-triphenylamine and *tris*-(phenoxazinyl)-triphenylamine derivatives (page 13).

However, Chen et al. provide no guidance for one of skill in the art to select hole transfer materials useful in transfer layers for donor sheets. Further, Chen et al. is totally silent regarding selectively thermally transferring a transfer layer to a receptor to make organic electroluminescent devices.

<u>*EP '714 in view of Chen et al.*</u>

Although documents can be combined in order to determine obviousness, "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988). One cannot simply "engage in a hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill the gaps." *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). Further, both the suggestion for combining the teachings of the prior art to make the invention and the reasonable likelihood of its success must be founded in the prior art and not in the teachings of Applicants' disclosure. *In re Dow Chem. Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988). Applicants respectfully submit that the cited art neither suggests the combination of their teachings nor suggests the reasonable likelihood that such a combination would result in the presently claimed invention.

As noted above, EP '714 lacks a disclosure of a dendrimer selected from the group recited in present claims 26-28. As further noted above, EP '714 also fails to disclose or suggest a genus of materials that can form an ***amorphous, non-polymeric***, organic matrix. As noted above, Chen et al. is totally silent regarding selectively thermally transferring a transfer layer to a receptor to make organic electroluminescent devices. Thus, Applicants respectfully submit that one of skill in the art would have no motivation to combine the teachings of EP '714 and Chen et al.

Further, absent Applicants' present disclosure, one of skill in the art would have no motivation to pick and choose from the many materials disclosed by Chen et al. for use as hole transport materials, a dendrimer selected from the group recited in present claims 26-28. Applicants respectfully submit that it is recognized in the art that certain organic light emitters can be difficult to selectively thermal transfer with high fidelity:

> Selective thermal transfer can be a viable patterning method for a wide variety of organic light emitters and for a wide variety of display constructions.
>
> Some LEPs can be difficult to selectively thermally transfer with high fidelity in their pure form. In many cases, this might be attributed to physical and mechanical properties of the film or coating of LEP material being transferred. Some physical and mechanical properties that may be important include molecular weight, intra-layer cohesive strength, and the like.
> (U.S. Pat. No. 6,855,384; column 1, lines 30-39).

Moreover, neither EP '714 nor Chen et al. provide guidance for one of skill in the art to select dendrimers that are useful to include in a transfer layer for selective thermal transfer.

Finally, the Examiner asserted that *tris*-(phenothiazinyl)-triphenylamine and *tris*-(phenoxazinyl)-triphenylamine derivatives (page 13 of Chen et al.) are "functional equivalents" to compound 11 disclosed in EP '714 (also disclosed as m-MTDATA on page 13 of Chen et al.). Applicants respectfully submit that neither EP '714 nor Chen et al. teaches that such compounds are "functional equivalents" for use in a transfer layer for selective thermal transfer. Moreover, Applicants respectfully submit that the Examiner's "functional equivalents" argument is no more

than an "obvious to try" argument, which is insufficient to support a *prima facie* case of unpatentability.

Thus, Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness.

CLAIMS 1-4, 6-7, 9-18, 20, and 22-25

The Examiner rejected claims 1-4, 6-7, 9-18, 20, and 22-25 under 35 U.S.C. §103(a) as being unpatentable over EP 0 851 714 (EP '714) in view of WO 00/03565 (WO '565). Applicants respectfully traverse the rejection.

"To establish a *prima facie* case of obviousness . . . there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." M.P.E.P. §706.02(j). Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness.

Claims 1-4, 6-7, 9-18, 20, and 22-25 are directed to methods of making donor sheets, and donor sheets having a solution coated transfer layer that includes, among other things, an amorphous, non-polymeric, organic matrix. The matrix includes at least one amorphous, non-polymeric, organic compound selected from the recited group of materials having tetrahedral cores. The donor sheets can be useful for making an organic electroluminescent device by selectively thermally transferring the transfer layer to a receptor.

EP '714

The disclosure of EP '714 has been discussed herein above. As noted by the Examiner, EP '714 lacks, among other things, a teaching or suggestion of a solution coated transfer layer having, among other things, an amorphous, non-polymeric, organic matrix that includes at least one amorphous, non-polymeric, organic compound selected from the group of materials having tetrahedral cores recited in claims 1-4, 6-7, 9-18, 20, and 22-25.

As further discussed herein above, EP '714 fails to disclose or suggest a genus of materials that can form an ***amorphous, non-polymeric***, organic matrix.

Thus, Applicants respectfully submit that EP '714 fails to disclose or suggest a solution coated transfer layer having, among other things, an amorphous, non-polymeric, organic matrix that includes at least one ***amorphous, non-polymeric***, organic compound selected from the group of materials having tetrahedral cores recited in present claims 1-4, 6-7, 9-18, 20, and 22-25.

WO '565

WO '565 discloses "an organic light emitting device comprising a first electrode, a second electrode, and an organic stack interposed between the first electrode and the second electrode, wherein the organic stack further comprises at least one organic layer . . . . The organic layer may be comprised of organic compounds with tetrahedral shaped core structures. tetrahedral shaped core structures containing aromatic side groups, tetrahedral shaped core structures containing aromatic amine side groups, symmetrical tetrahedral shaped core structures, symmetrical tetrahedral shaped core structures containing aromatic side groups, and/or symmetrical tetrahedral shaped core structures containing aromatic amine side groups" (abstract).

However, WO '565 provides no guidance for one of skill in the art to select hole transfer materials useful in transfer layers for donor sheets. Further, although WO '565 discusses expected difficulties in thermal sublimation (e.g., page 6, lines 1-6), WO '565 is totally silent regarding selectively thermally transferring a transfer layer to a receptor to make organic electroluminescent devices.

EP '714 in view of WO '565

Although documents can be combined in order to determine obviousness, "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988). One cannot simply "engage in a hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill the gaps." *In*

re Gorman, 933 F.2d 982, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). Further, both the suggestion for combining the teachings of the prior art to make the invention and the reasonable likelihood of its success must be founded in the prior art and not in the teachings of Applicants' disclosure. *In re Dow Chem. Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988). Applicants respectfully submit that the cited art neither suggests the combination of their teachings nor suggests the reasonable likelihood that such a combination would result in the presently claimed invention.

As noted above, EP '714 lacks a disclosure of a material having a tetrahedral core as recited in present claims 1-4, 6-7, 9-18, 20, and 22-25. As further noted above, EP '714 also fails to disclose or suggest a genus of materials that can form an ***amorphous, non-polymeric***, organic matrix. As noted above, WO '565 is totally silent regarding selectively thermally transferring a transfer layer to a receptor to make organic electroluminescent devices. Thus, Applicants respectfully submit that one of skill in the art would have no motivation to combine the teachings of EP '714 and WO '565.

Moreover, Applicants respectfully submit that it is recognized in the art that certain organic light emitters can be difficult to selectively thermal transfer with high fidelity:

> Selective thermal transfer can be a viable patterning method for a wide variety of organic light emitters and for a wide variety of display constructions.
>
> Some LEPs can be difficult to selectively thermally transfer with high fidelity in their pure form. In many cases, this might be attributed to physical and mechanical properties of the film or coating of LEP material being transferred. Some physical and mechanical properties that may be important include molecular weight, intra-layer cohesive strength, and the like.
> (U.S. Pat. No. 6,855,384; column 1, lines 30-39).

Moreover, neither EP '714 nor WO '565 provides guidance for one of skill in the art to select ***amorphous, non-polymeric***, organic compounds selected from the recited group of materials having tetrahedral cores that are useful to include in a transfer layer for selective thermal transfer.

Finally, the Examiner asserted that since both EP '714 and WO '565 recite the same compound, TPD (i.e., compound 10 on page 7 of EP '714; page 4 of WO '565), "it would have been obvious to one skilled in the requisite art to utilize tetrahedral core compounds, as taught by WO '565, as the amorphous hole transport material of the donor film" (page 7, lines 13-15 of the Office Action mailed 9 February 2005). Applicants respectfully disagree for at least the following reasons.

The Examiner is correct in that both documents disclose the same compound, TPD. However, Applicants respectfully submit that neither EP '714 nor WO '565 teaches or suggests that tetrahedral core compounds are useful in a transfer layer for selective thermal transfer.

Thus, Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness.

CLAIMS 8, 21, and 26-28

The Examiner rejected claims 8, 21, and 26-28 under 35 U.S.C. §103(a) as being unpatentable over EP 0 851 714 (EP '714) in view of Grazulevicius et al. ("Charge-Transporting Polymers and Molecular Glasses"). Applicants respectfully traverse the rejection.

"To establish a *prima facie* case of obviousness . . . there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." M.P.E.P. §706.02(j). Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness.

Claims 8 and 21 are directed to methods making donor sheets, and donor sheets having a solution coated transfer layer that includes, among other things, an amorphous, non-polymeric, organic matrix. The matrix includes an amorphous, non-polymeric, organic spiro compound. The donor sheets can be useful for making an organic electroluminescent device by selectively thermally transferring the transfer layer to a receptor.

Claims 26-28 are directed to methods of making donor sheets, and donor sheets having a solution coated transfer layer that includes, among other things, an amorphous, non-polymeric, organic matrix. The matrix includes at least one amorphous, non-polymeric, organic dendrimer, wherein the dendrimer is selected from the recited group. The donor sheets can be useful for making an organic electroluminescent device by selectively thermally transferring the transfer layer to a receptor.

EP '714

The disclosure of EP '714 has been discussed herein above. As noted by the Examiner, EP '714 lacks, among other things, a teaching or suggestion of a solution coated transfer layer having, among other things, an amorphous, non-polymeric, organic matrix that includes an amorphous, non-polymeric, organic spiro compound (e.g., present claims 8 and 21) or at least one amorphous, non-polymeric, organic dendrimer, wherein the dendrimer is selected from the group recited in present claims 26-28.

As further discussed herein above, EP '714 fails to disclose or suggest a genus of materials that can form an ***amorphous, non-polymeric***, organic matrix.

Thus, Applicants respectfully submit that EP '714 fails to disclose or suggest a solution coated transfer layer having, among other things, an amorphous, non-polymeric, organic matrix that includes an ***amorphous, non-polymeric***, organic spiro compound (e.g., present claims 8 and 21) or at least one ***amorphous, non-polymeric***, organic dendrimer, wherein the dendrimer is selected from the group recited in present claims 26-28.

Grazulevicius et al.

Grazulevicius et al. state that "[t]he main aim of this review is to describe the different classes of charge-transporting polymers and molecular glasses by focusing attention on the synthesis and charge-transporting properties of the most effective representatives of these electronically active organic materials" (page 234, column 1, second paragraph). Among the many materials disclosed by Grazulevicius et al. for use as hole transport materials, the Examiner

notes that Grazulevicius et al. disclose as molecular glasses m-MTDATA on page 260 (compound 71a; the same compound as compound 11 disclosed in EP '714) as well as other dendrimers including *tris*-(phenothiazinyl)-triphenylamine on page 260 (compound 73), and spiro compounds on page 263 (compounds 83a, 83b, and 84).

However, Grazulevicius et al. provide no guidance for one of skill in the art to select hole transfer materials useful in transfer layers for donor sheets. Further, Grazulevicius et al. state that "[i]n this review we will pay more attention to those photoconductive molecular glasses from which films can be prepared by simple casting or spin-coating techniques" (page 259, column 1, paragraph 2). Moreover, Grazulevicius et al. is totally silent regarding selectively thermally transferring a transfer layer to a receptor to make organic electroluminescent devices.

EP '714 in view of Grazulevicius et al.

Although documents can be combined in order to determine obviousness, "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988). One cannot simply "engage in a hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill the gaps." *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). Further, both the suggestion for combining the teachings of the prior art to make the invention and the reasonable likelihood of its success must be founded in the prior art and not in the teachings of Applicants' disclosure. *In re Dow Chem. Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988). Applicants respectfully submit that the cited art neither suggests the combination of their teachings nor suggests the reasonable likelihood that such a combination would result in the presently claimed invention.

As noted above, EP '714 lacks a disclosure of an ***amorphous, non-polymeric***, organic spiro compound (e.g., present claims 8 and 21) or at least one amorphous, non-polymeric, organic dendrimer, wherein the dendrimer is selected from the group recited in present claims

26-28. As further noted above, EP '714 also fails to disclose or suggest a genus of materials that can form an ***amorphous, non-polymeric***, organic matrix. As noted above, Grazulevicius et al. is totally silent regarding selectively thermally transferring a transfer layer to a receptor to make organic electroluminescent devices. Thus, Applicants respectfully submit that one of skill in the art would have no motivation to combine the teachings of EP '714 and Grazulevicius et al.

Further, absent Applicants' present disclosure, one of skill in the art would have no motivation to pick and choose from the many materials disclosed by Grazulevicius et al. for use as hole transport materials, an ***amorphous, non-polymeric***, organic spiro compound (e.g., present claims 8 and 21) or at least one ***amorphous, non-polymeric***, organic dendrimer, wherein the dendrimer is selected from the group recited in present claims 26-28. Applicants respectfully submit that it is recognized in the art that certain organic light emitters can be difficult to selectively thermal transfer with high fidelity:

> Selective thermal transfer can be a viable patterning method for a wide variety of organic light emitters and for a wide variety of display constructions.
> Some LEPs can be difficult to selectively thermally transfer with high fidelity in their pure form. In many cases, this might be attributed to physical and mechanical properties of the film or coating of LEP material being transferred. Some physical and mechanical properties that may be important include molecular weight, intra-layer cohesive strength, and the like.
> (U.S. Pat. No. 6,855,384; column 1, lines 30-39).

Moreover, neither EP '714 nor Grazulevicius et al. provide guidance for one of skill in the art to select organic spiro compounds or dendrimers that are useful to include in a transfer layer for selective thermal transfer.

Finally, the Examiner asserted that the spiro compounds (page 263 of Grazulevicius et al.) and *tris*-(phenothiazinyl)-triphenylamine (page 260, compound 73 of Grazulevicius et al.) are "functional equivalents" to compound 11 disclosed in EP '714 (also disclosed as compound 71a on page 260 of Grazulevicius et al.). Applicants respectfully submit that neither EP '714 nor

Grazulevicius et al. teaches that such compounds are "functional equivalents" for use in a transfer layer for selective thermal transfer. Moreover, Applicants respectfully submit that the Examiner's "functional equivalents" argument is no more than an "obvious to try" argument, which is insufficient to support a *prima facie* case of unpatentability.

Thus, Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness.

In view of the remarks made herein above, Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. §103.

Summary

It is respectfully submitted that all the pending claims are in condition for allowance and notification to that effect is respectfully requested. The Examiner is invited to contact Applicants' Representatives, at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted for
Erika BELLMANN et al.

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CERTIFICATE UNDER 37 CFR §1.8:
The undersigned hereby certifies that the Transmittal Letter and the paper(s), as described hereinabove, are being transmitted by facsimile in accordance with 37 CFR §1.6(d) to the Patent and Trademark Office, addressed to **Mail Stop Amendment**, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 8th day of June, 2005, at 1:58 p.m. (Central Time).

By: [signature]
Name: Rachel Gagliardi-Graham